

REMARKS

Claims 1-11, 14, 15, 17-26, 29, 30, 32, 33, 35, 36, 38, 39, and 41-47 have been examined. Claims 1-11, 14, 15, 17-26, and 41-43 have been rejected under 35 U.S.C. § 112, second paragraph, claims 1-3, 8-11, 14, 15, 17-20, 25, 26, 32, 33, 35, 36, 38, 39, and 41-47 have been rejected under 35 U.S.C. § 102(b), and claims 4-7 and 21-24 have been rejected under 35 U.S.C. § 103(a).

I. Rejection under 35 U.S.C. § 112, second paragraph

Claims 1-11, 14, 15, 17-26, and 41-43 have been rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite.

A. Claim 1

With respect to claim 1, the Examiner contends that the phrase requiring “the generated substitute information has a data length within a range correctable by an error correction capability” merely remarks on a characteristic of the substitute information and does not further limit the structure of the apparatus. As such, the Examiner contends that the phrase is indefinite under 35 U.S.C. § 112, second paragraph. Applicants respectfully disagree.

As a preliminary matter, even assuming *arguendo* that the phrase “merely remarks on a characteristic of the substitute information,” as the Examiner alleges, Applicants are unsure why the phrase does not further limit the structure of the claimed apparatus. For instance, the phrase sets forth the metes and bounds of the data length of the substitute information, which clearly relates to the structure of the information.

In fact, phrases that “merely remark on a characteristic” of a claimed feature are commonly used in apparatus claims and unquestionably limit the claim. For example, a hypothetical claim may recite “a shaft” and may state “wherein the shaft has a cross section in a

shape of a square.” While the wherein clause “merely remarks on a characteristic” of the shaft, it unquestionably limits the shaft and clearly defines the metes and bounds of the shaft as 35 U.S.C. § 112, second paragraph, requires. Specifically, the claimed shaft would read on shafts that have a square-shaped cross section and would not read on shafts with circular, hexagonal, or other “non-square-shaped” cross sections.

Similarly, the wherein clause that further characterizes the claimed substitute information clearly limits the claimed information and satisfies the requirements of 35 U.S.C. § 112, second paragraph. For instance, if information has a data length that is within a range that is correctable by an error correction capability, the information would fall within the claim limitation at issue. On the other hand, information, which has a data length that is not within a range that is correctable by an error correction capability, would not fall within the claim limitation. Clearly, the wherein clause defines the data length of the substitute information, relates to the structure of the substitute information, and clearly defines the metes and bounds of the limitation. Thus, it satisfies the requirements of 35 U.S.C. § 112.

In addition, Applicants submit that defining the length of data to be within a range correctable by an error correction capability is clear to one skilled in the art. For example, column 3, lines 19-23, of U.S. Patent No. 6,104,331 to Ishida et al. contains a non-limiting example of an instance in which one skilled in the art discusses shortening a length of data to be within a range that can be corrected via an error correction technique.

B. Claim 2

The Examiner contends that claim 2 is indefinite under 35 U.S.C. § 112, second paragraph, because it states that “the substituting device substitutes part of the generated encrypted recording information with the generated substitute information.” Applicants submit

that the claim language clearly defines the metes and bounds of the limitation. Specifically, if a apparatus contains a device that substitutes part of the generated encrypted recording information with the generated substitute information it falls within the scope of the limitation. On the other hand, if it does not include such a device, then it falls outside the scope of the limitation.

Also, while that the phrase at issue recites the function of the claimed substituting device, it still limits the claim. Specifically, as noted in M.P.E.P. § 2173.05(g):

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.

Since claim 2 relates to a device that manipulates data, rather than a purely mechanical apparatus, the functional language of the claimed device actually defines the structure of the device. For example, in a data processing context, if a controller or microprocessor executes a computer program to perform the claimed substitution operation, the only way to claim the structure of the executed program is by claiming the function that it performs.

Accordingly, Applicants submit that the phrase at issue in claim 2 limits the scope of the claim and is definite under 35 U.S.C. § 112, second paragraph.

C. Claim 14

The Examiner has rejected claim 14 under 35 U.S.C. § 112, second paragraph, because a claim limitation lacks antecedent basis. Applicants submit that the amendments to the claim overcome the rejection.

D. Claim 29

The Examiner has rejected claim 29 under 35 U.S.C. § 112, second paragraph, for reasons that are similar to why he rejected claim 1. Applicants submits that the analogous

language of claim 29 limits the claim and is clear and define for at least reasons that are analogous to the reasons presented above in conjunction with claim 1.

E. Remaining claims

Applicants submit that the remaining claims, which the Examiner rejects under 35 U.S.C. § 112, second paragraph, are patentable for at least reasons that are similar to at least some of the reasons presented above.

II. Rejection under 35 U.S.C. § 102(b) over U.S. Patent No. 5,930,367 to Osawa et al. (“Osawa”)

Claims 1-3, 8-11, 14, 15, 17-20, 25, 26, 32, 33, 35, 36, 38, 39, and 41-47 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Osawa. Applicants respectfully submit that the claims are patentable over the reference.

A. Claim 1

For example, claim 1 relates to an apparatus that comprises a substituting device, and the substituting device substitutes a part of recording information with generated substitute information in a plurality of units of error correction. Furthermore, the device changes a substitution position for each of the units on the basis of substitution position information indicating the substitution position.

On page 4 of the Office Action, the Examiner seems to contend that, in Osawa, the parity or error correction codes C1 and C1 shown in Fig. 1 correspond to the claimed recording information and that the sector at which information is substituted for the codes C1 and C2 corresponds to the claimed substitute position. However, as shown in Fig. 1 and described at column 4, lines 30-46, of the reference, the position of the codes C1 and C2, as well as ID information, are fixed in the rightmost 22 bits of two horizontal frames.

Since the location of the alleged recording information C1 and C2 is fixed, the substitution position of the alleged substitution information is likewise fixed. Accordingly, Osawa does not suggest a substituting device that changes a substitution position on the basis of substitution position information, as claimed.

Furthermore, since Osawa does not teach changing a substitution position, it does not additionally disclose or suggest a substituting device that substitutes part of the recording information with substitute information in a plurality of units of error correction and that changes the substitution position for each of the units.

Accordingly, Applicants submit that claim 1 is patentable for at least the reasons presented above.

B. Claims 2, 3, and 8-11

Since claims 2, 3, and 8-11 depend upon claim 1, Applicants submit that they are patentable at least by virtue of their dependency.

C. Claim 14

Since claim 14 contains features that are similar to the features recited in claim 1, Applicants submit that the claim is patentable for at least similar reasons.

D. Claim 15

Since claim 15 depends upon claim 14, Applicants submit that it is patentable at least by virtue of its dependency.

E. Claim 17

Since claim 17 contains features that are similar to the features recited in claim 1, Applicants submit that the claim is patentable for at least similar reasons.

F. Claims 18-20, 25, and 26

Since claims 18-20, 25, and 26 depend upon claim 17, Applicants submit that they are patentable at least by virtue of their dependency.

G. Claim 32

Since claim 32 contains features that are similar to the features recited in claim 1, Applicants submit that the claim is patentable for at least similar reasons.

H. Claim 33

Since claim 33 depends upon claim 32, Applicants submit that it is patentable at least by virtue of its dependency.

I. Claim 35

Since claim 35 contains features that are similar to the features recited in claim 1, Applicants submit that the claim is patentable for at least similar reasons.

J. Claim 36

Since claim 36 depends upon claim 35, Applicants submit that it is patentable at least by virtue of its dependency.

K. Claim 38

Since claim 38 contains features that are similar to the features recited in claim 1, Applicants submit that the claim is patentable for at least similar reasons.

L. Claims 39 and 41-47

Since claims 39 and 41-47 depend upon claim 1, 14, 17, 29, 32, 35, or 38, Applicants submit that they are patentable at least by virtue of their dependency.

III. Rejection under 35 U.S.C. § 103(a) over Osawa and U.S. Patent No. 4,757,534 to Matyas et al. (“Matyas”)

Claims 4-7 and 21-24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Osawa and Matyas. Since claims 4-7 and 21-24 depend upon claim 1 or 17, and since Matyas does not cure the deficient teachings of Osawa with respect to claims 1 and 17, Applicants submit that claims 4-7 and 21-24 are patentable at least by virtue of their dependency.

IV. Newly added claims

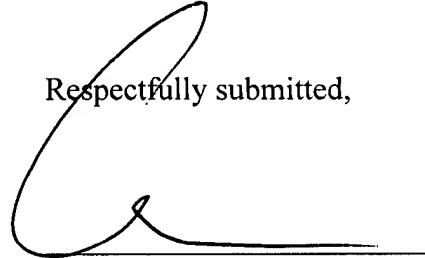
Applicants have added new claims 48-54. Since such claims depend upon claim 1, 14, 17, 29, 32, 35, or 38, Applicants submit that they are patentable at least by virtue of their dependency.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Grant K. Rowan', written over a horizontal line.

Grant K. Rowan
Registration No. 41,278

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

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